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IDENTIFYING FACTORS WHICH PREDICT WOMEN'S INABILITY TO MAINTAIN SEPARATION FROM AN ABUSIVE PARTNER

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IDENTIFYING FACTORS WHICH PREDICT WOMEN'S INABILITY TO MAINTAIN SEPARATION FROM AN ABUSIVE PARTNER

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ABSTRACT

In the aftermath of intimate of partner violence (IPV), women often experience a number of intrusive issues including abuse and harassment, the demands of managing health problems, the personal cost of getting help, and changes to patterns of living. Although these challenges in women's lives could explain why they return to their ex-partners or engage in a new abusive relationship, the full range of conditions which interfere with women's ability to maintain separation from an abusive partner have not been identified. This study examines the extent to which selected indicators of intrusion predict the odds of women maintaining separation from an abusive partner over a 1 year period of time by testing a hypothesis derived from Strengthening Capacity to Limit Intrusion theory. This secondary analysis of 286 women who completed both wave 1 and 2 from the Women's Health Effects Study revealed that depression and PTSD heighten women's risk of their inability to maintain separation from an abusive partner. The finding of this study emphasizes the importance of adapting nursing's practice, education, and research focus to ultimately care for abused women in terms of mental health.

Key words: intimate partner violence, depression, post-traumatic stress disorder (PTSD), women's inability to maintain separation.

CO-AUTHORSHIP

Eman Alhalal completed the following work under the supervision of Dr. Marilyn Ford-Gilboe, who will be co-authored on the publication resulting from Chapter 2 of this manuscript.

DEDICATION

To Allah, the Creator and Lord of the Universe. O' Allah, great thanks to you.

To the Seal of the Prophets and the Master of all beings; the Holy Prophet Muhammad- peace be upon him and his Household.

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CHAPTER 1

Intimate partner violence (IPV) is a widespread form of violence that pervades the lives of many women across the world and is defined as enforced physical, social, spiritual, sexual, psychological, verbal, and financial abuse committed by an intimate partner (Cronholm & Bowman, 2009; Sharps, Laughon, & Giangrande, 2007) in the context of coercive control (Tjaden & Thoennes, 2000). Since 1980, this issue has received increasing attention and has been identified as a global human rights issue (Ellsberg & Heise, 2005) and public health epidemic (WHO, 2005). According to the 2004 General Social Survey, 7% of Canadian women 15 years and older reported experiencing IPV in the past five year (Canadian Centre for Justice Statistics, 2005), although critiques of prevalence studies suggest that annual rates of IPV in Canada may be as high as 23% (Clark & DuMont, 2003).

Many women respond to the harmful effects of IPV by leaving the abusive relationship (Alsaker, Moen, & Kristoffersen, 2007). Some of these women return to live with an abusive partner again after a period of time and some enter new abusive relationships, although the extent to which these events occur is not well known. Qualitative studies (e.g. Enander & Holmberg, 2008; Landenburger, 1989; Merritt-Gray & Wuest, 1995; Moss, Pitula, Campbell, & Halstead, 1997) about the process of leaving an abusive partner suggest that, after leaving, women experience varying levels of intrusion (or external interferences) which make it difficult to create their vision of a better life (Ford-Gilboe, Wuest, & Merritt-Gray, 2005; Wuest, Ford-Gilboe, Merritt-Gray, & Berman, 2003). Some factors that are associated with women returning to their ex-partners have been identified (Griffing et al., 2002; Lutenbacher, Cohen, & Mitzel,

2003; McNaughton & Sanders, 2007; Newman, 1993; Pavao, Alvarez, Baumrind, Induni, & Kimerling, 2007; Taylor-Butts, 2007), but limited attention has been given to understanding risk factors associated with entering a new abusive relationship. Furthermore, the relative importance of these factors in interfering with women's ability to maintain separation has not been well studied.

This thesis focuses on examining the extent to which various types of intrusion predict women's inability to maintain separation from an abusive partner, whether an ex-partner or new partner. To provide a broad foundation for this study, a brief overview of the literature that addresses the risk factors for IPV, the consequences of IPV, and the process of leaving an abusive relationship, is presented here.

Risk Factors for Experiencing IPV

Although IPV cuts across social classes, ethnic groups, and geographic settings (Dallam, 2005; Menard, 2001), several factors have been found to increase women's risk of experiencing IPV. The World Health Organization (WHO) (2002) developed an ecological model to conceptualize the complex and multidimensional nature of violence within a broad social context, and to understand the factors that increase the risk of being a victim of violence. This model and the literature more generally, identify risk factors for IPV at four levels: individual, relationship, community, and societal (WHO, 2002), suggesting that IPV could be prevented by acting across a number of these factors across different levels.

At the individual level, several factors predispose women to experience IPV including having low income (Vest, Catlin, Chen, & Brownson, 2002), younger age, having children in the household, being divorced/separated, perceiving poor health status

(Romans, Forte, Cohen, Du Mont, & Hyman, 2007), including mental health (Ehrensaft, Moffitt, & Caspi, 2006), using drugs (El-Bassel, Gilbert, Wu, Go, & Hill, 2005), and having previous history of childhood abuse, including witnessing parental violence (Bensley, Eenwyk, Simmons, 2003). Recently, Wathen et al. (2007) conducted a Canadian study to identify risk indicators for IPV in a sample of 768 women who presented to two emergency departments in Ontario. The researchers found a significant association between exposure to IPV and being depressed, experiencing somatization, being separated, having a partner with a drug or alcohol problem, or having a partner employed less than part time.

At the relationship level, conflict in the marital relationship, such as disagreement (Jewkes, 2002), and living in a common law relationship (Brownridge, 2003; Wathen et al., 2007) are both risk factors for IPV. It has been suggested that the conditions which are often part of being in a common-law relationships (i.e. childlessness, relationship instability, and younger age of the couple) explain why this is a risk factor for IPV (Brownridge & Halli, 2002).

Women living in poorer communities or neighbourhoods are also at greater risk of experiencing IPV (Benson, Fox, DeMaris, & Van Wyk, 2003; O'Campo, Burke, Peak, McDonnell, & Gielen, 2005). This greater risk has been explained in several ways, including absence of services and recreation opportunities, lack of jobs, low levels of schooling, poor living conditions, high levels of alcohol consumption, and the burden of providing for the family, which might generate frustrations that unleash violent behaviours and trigger conflicts between partners (Gonzales de Olarte & Gavilano Llosa, 1999). Evidence from American research shows that the impact of living in

neighborhoods which are characterized by unemployment, and lack of economic and social resources negatively affects abused women's well-being over and above the effects of IPV (Beeble, Sullivan, & Bybee, 2011), and that rates of IPV are significantly higher in multiracial communities where the income tends to be lower (CDC, 2008). In Canada, Cohen and Maclean (2003) found that prevalence rates of IPV increased with lower annual household income as well. Immigrant communities are one of the most economically and socially marginalized populations in Canada (Barrett & Pierre, 2011); within this context, immigrant women's circumstances, including social isolation, their immigrant status, and being in lower paying jobs (Bui, 2003; Raj & Silverman, 2002) all increase their risk of IPV. Finally, Aboriginal women are 4 times as likely to experience violence by a male partner (Brownridge, 2008) and 8 times more likely to be killed by their partners (Trainor & Mihorean, 2001), than non-Aboriginal women. Aboriginal women's heightened risk of IPV has been attributed primarily to the effects of colonization, including racism, unemployment and poverty, higher rates of child abuse, substance use, and mental health problems (Bourassa, McKay-McNabb, & Hampton, 2004). In a context where Aboriginal men often feel devalued by society, they may seek power through domination of their female partners, placing Aboriginal women who are in higher social positions, such as those with more education, at higher risk of IPV (Brownridge, 2003).

Finally, several societal factors also influence the prevalence of IPV, including tolerance for adults using violence to solve disagreements, easy access to weapons (WHO, 2002), and traditional gender roles (Sugarman & Frankel, 1996). In the recent *WHO Multi-Country Study on Women's Health and Domestic Violence Against Women*

in 10 countries, violence against women was found to be a consequence of gender inequality in most countries (WHO, 2005). In societies where traditional gender roles are the norm, women are less able to participate in decision-making and are more likely to be economically dependent on a partner; these conditions reinforce male dominance over women, increasing women's risk of IPV.

Health and Social Consequences of Intimate Partner Violence

Many studies have documented the consequences of IPV on women's lives, health, and children. Abused women are more likely to experience chronic physical health problems including back and neck pain, traumatic brain injury, migraines, epilepsy and seizure disorders due to injuries and trauma (Banks, 2007; Campbell, Pliska, Taylor, & Sheridan, 1994; Coker, Smith, & Fadden, 2005; Mize, Shackelford, & Shackelford, 2009). In addition, gastrointestinal (GI) symptoms and disorders, such as abdominal pain, diarrhea, constipation, indigestion, dyspepsia, and irritable bowel syndrome, can be a consequence of IPV (Campbell et al., 2002; Coker, Smith, Bethea, King, & McKeown, 2000; Perona et al., 2005). Leserman and Drossman (2007) concluded from a comprehensive literature review that lifetime physical and/or sexual abuse has been associated with GI problems. Moreover, abused women may experience severe menstrual pain and pain during sex due to forced sex, sexually transmitted infections (STIs), and/or HIV infection (Coker, Hopenhayn, DeSimone, Bush, & Crofford, 2009; Raiford, Diclemente, & Wingood, 2009). Overall, women who have been abused have poorer health status and higher rates of health service utilization than women who have not experienced abuse (Campbell, 2002; Plichta, 2004; Ruiz-Perez, Plazaola-Castano, & Del Rio-Lozano, 2007; Varcoe et al., 2011).

Women who have experienced IPV are also more likely to engage in health risk behaviours, such as smoking, alcohol, and drug use (Weaver & Resnick, 2004), and to have mental health problems including low self-esteem, depression, anxiety, eating disorders, sleep disorders, and suicidal ideation (Campbell 2002; Campbell et al., 1994; Humphreys & Lee, 2005; Mechanic, Weaver, & Resick, 2008; Stark, 2007; Svavarsdottir & Orlygsdottir, 2009). Women who have experienced IPV are at particular risk of depression and post- traumatic stress disorder (PTSD) (Golding, 1999; Renner & Markward, 2009; Woods, 2000), a condition which has been found to mediate the impact of IPV on physical health (Dutton, 2009; Woods et al., 2005; Wuest et al., 2009). Poorer health among women who have experienced IPV may directly or indirectly stem from the traumatic stress that is associated with IPV (Sutherland, Bybee, & Sullivan, 2002), from injuries (Plichta, 2004), and/or from health risk behaviors (Weaver & Resnick, 2004).

Furthermore, there is evidence that IPV can begin or increase during pregnancy (Hart & Jamieson, 2001; Kendall-Tackett, 2007; McFarlane, 1993). In two Canadian studies, the prevalence of physical abuse during pregnancy has been estimated as 5.7% and 6.6% (Muhajarine & D'Arcy, 1999; Stewart & Cecutti, 1993). Past and current IPV has been related to increased risk of pregnancy complications, interventions during birth, postpartum parenting problems, and breastfeeding cessation as a result of women's poor health behaviors, depression, and PTSD (Kendall-Tackett, 2007). Consequently, abused women's children are more likely to born with a low birth weight (Fried, Cabral, Amaro, & Aschengrau, 2008; Rosen, Seng, Tolman, & Mallinger, 2007; Valladares, Pena, Ellsberg, Persson, & Högberg, 2009) and to have poor health during infancy (Asling-Monemi, Naved, & Persoon, 2009). Moreover, children who observe IPV have been

found to experience more behavioural and internalizing problems such as anxiety, depression, isolation, and suicidal ideas than those who have not witnessed IPV (Holt, Buckley, & Whelan, 2008; McFarlane, Groff, O'Brien, & Watson, 2003; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003).

Being in an abusive relationship typically impacts women's social networks (Ford-Gilboe et al., 2009; Levendosky et al., 2004), as an abusive partner may work to isolate women and limit their contact with members and friends. In addition, IPV erodes women's economic resources by limiting access to income (Tolman & Rosen, 2001). Social isolation and poverty can also be explained by unemployment, since IPV may negatively affect employment outcomes (Moe & Bell, 2004). For example, Crowne et al., (2011) revealed that there is a negative relationship between IPV and employment stability, with abused women being more likely to have unstable employment. Knowing that abused women are typically more isolated and have weaker ties to income and employment is helpful in understanding what they may face when they attempt to separate from an abusive partner.

The Process of Leaving an Abusive Relationship

Traditionally, women who have experienced abuse have been seen as powerless, hopeless, and dependent and leaving has been conceptualized as a single, decisive act. However, findings from qualitative studies have shifted these understandings to conceptualize leaving as a complex and dynamic process which occurs over time. Two groups of studies have been conducted: those which have been framed within the Transtheoretical Model (TCM) of Change (Prochaska & DiClemente, 1984), and those which have approached the issue more inductively.

In general, studies which have adopted the TCM (Brown, 1997; Bliss, Ogley-Oliver, Jackson, Harp & Kaslow, 2008; and Burke, Denison, Gielen, McDonnell, & O'Campo, 2004), have described leaving as occurring in a series of five stages which reflect the stages of the theory. In the *pre-contemplation phase*, abused women usually deny the abuse (Brown, 1997; Bliss et al., 2008; Burke et al., 2004; Edwards et al., 2006) and experience contradictory feelings of love for their partners and confusion about the abuse (Khaw & Hardesty, 2009). When women recognize the abuse and realize that it is not their fault, they move to the *contemplation stage*. Women in this stage are open to new information and to considering change, but are not ready to take action (Brown, 1997). Contemplation may last for years as women think about how to terminate or change the relationship and work to build needed resources (Brown, 1997; Khaw & Hardesty, 2007).

Over time, women decide to leave after noticing the negative effects of abuse on them and their children; this is typically the turning point from the contemplation to preparation stage (Khaw & Hardesty, 2007) and a period marked by evaluation of the self and environment (Burke et al., 2004). Women enter the *preparation stage* when they are ready to take action because, in this stage, women consider their options and choices. As women let go of the desire for family unity (Khaw & Hardesty, 2007), they shift to the *action stage* and focus on modifying their behaviours and actively taking steps to leave (Burke et al., 2004). In the final stage, *maintenance*, women are able to maintain separation from their abusive partner (Brown, 1997; Bliss et al., 2008; Burke et al., 2004; Khaw & Hardesty, 2007), because they have liberated themselves by gaining awareness about alternative problem solving methods (Burke et al., 2004).

Although results of these studies could be helpful in developing appropriate interventions that match women's stage of change, the appropriateness of the Transtheoretical Model for studying IPV has been challenged. Since the TCM is often used to help people change their own problem behaviours (such as drug use) (Prochaska, Redding, & Evers, 2002), using this model with abused women suggests that the solution to IPV is for women to change their thinking and actions. This position fails to hold men accountable for the violence and oversimplifies the issue of IPV by not accounting for the ways in which the context of women's lives shapes the options that are available to women as they work toward leaving (Anderson & Saunders, 2003). Furthermore, the emphasis placed on leaving as a process that occurs in one direction, without accounting for women leaving and returning to their partners as part of this process, is a poor fit with many women's experiences.

In contrast to qualitative studies of leaving based on the TCM, qualitative studies designed to *inductively* describe women's experiences of leaving an abusive partner have tended to emphasize the complexity and fluid nature of the leaving process as it occurs over time (Davis, 2002; Enander & Holmberg, 2008; Landenburger, 1989; Merritt-Gray & Wuest, 1995; Moss et al., 1997; Ulrich, 1991). For example, Landenburger (1989) explained women's experiences of abuse by interviewing 30 abused women who were currently living with, or had left, abusive partners 2 weeks to 23 years previously. The study revealed that women who have experienced IPV engage in a process of "entrapment in and recovery from an abusive relationship" which includes 4 phases: a) binding, in which women rationalize the abuse and focus exclusively on the positive relationship aspects, b) enduring, in which the women try to ignore and tolerate the

abuse, but feel hopeless and worthless, c) disengaging, in which women label themselves as abused and start to resist the abuse by looking for help, using protective strategies, and thinking about the reasons for abuse, and, d) recovery, in which women readjust their lives after leaving and work to understand the past abuse (Landenburger, 1989).

Similarly, Merritt-Gray & Wuest (1995) used a grounded theory approach to describe the social process of leaving an abusive relationship as one of "Reclaiming Self". This process includes four interrelated phases, with back and forth movement expected between these phases as women attempt to make changes in their lives. In the first phase, "counteracting abuse", women relinquish parts of self by giving up considerable aspects of themselves that are vital to their personality or image, minimize the abuse by protecting and fighting back, and fortify themselves by distancing themselves, creating a leaving plan, and improving their personal capabilities (Merritt-Gray & Wuest, 1995). In the second phase, "breaking free", women test varied ways of separating, withdrawing emotionally from the relationship, stepping outside of the relationship, and taking risks (Merritt-Gray & Wuest, 1995). The third phase, "not going back", is a period of readjusting in which women attempt to gain control over most aspects in their lives, get situated within the community, and justify their actions when they seek help from resources including legal help, police protection, housing, financial aid, child care, and transportation (Wuest & Merritt-Gray, 1999). Finally, in the fourth phase, "moving on", women attempt to put the abuse behind them; they begin to see themselves as more than survivors, develop a new image of their lives, and may begin new relationships (Wuest & Merritt-Gray, 2001).

Finally, in a qualitative descriptive study of African American and European American women who had experienced IPV, Moss et al. (1997) found that the process of leaving may vary shaped by women's ethnicity. Specifically, African American women were more likely to fight back when experiencing abuse, rather than call the police or asking the community for assistance, while European American women were more likely to use the judicial system. Although this study does not provide an in-depth description of the process of leaving, it adds to existing knowledge about variations in help seeking among women who have experienced IPV.

The above studies underscore that leaving is a multifaceted process of emotional, cognitive, and behavioural change in which women are survivors and not passive, helpless victims (Anderson & Saunders, 2003; Moe, 2009). With the exception of Merritt-Gray and Wuest's study, most studies pay limited attention to how broader socio-structural factors influence the process of leaving. While Merritt-Gray and Wuest (1995) acknowledge the notable resilience and strengths of women and suggest that maintaining the separation is a complex process which needs to be supported by adequate resources, overall, there has been a focus in research on the processes which lead to separation, rather than those which maintain it.

In summary, both factors that increase women's risk of experiencing IPV, and the short- and long-term health consequences of IPV for women have been well documented. There is ample evidence that most women eventually leave, or attempt to leave, an abusive relationship in an effort to become safer and to have a better life. Qualitative studies depict the process of leaving as challenging and complex, with women needing a variety of resources to support them over time. Health professionals, including nurses,

must give substantial attention to IPV and view women who have experienced IPV as survivors and work to support women in reducing the internal and external barriers to leaving and to maintaining separation. However, little is known about factors that predict women's ability to maintain separation over time. By addressing this gap, this study will enhance existing understanding about what contributes to, and interferes with, women's ability to maintain separation over time, with implications for the development of practices and policies to better support the safety and well-being of women and their families in the aftermath of IPV.

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CHAPTER 2

MANUSCRIPT*

Intimate partner violence (IPV), a pattern of physical, sexual and/or emotional abuse by an intimate partner in the context of coercive control (Tjaden & Thoennes, 2000), has significant and undesirable effects on women's health, and considerable societal impact (Campbell, 2002; Frayne, Skinner, Sullivan, & Freund, 2003). Although separation from an abusive partner is difficult and women are often fearful of the consequences (Fleury, Sullivan, & Bybee, 2000; Lindgren & Renck, 2008), most women who have experienced IPV do eventually leave their partners (Campbell, Miller, Cardwell, & Belknap, 1994; Campbell & Soeken, 1999). Leaving an abusive partner is not a 'one-off' incident, but a process, with most women often returning to their partners before they are able to maintain long-term separation (Landenburger, 1989; Merritt-Gray & Wuest, 1995; WHO, 2002; Wuest & Merritt-Gray, 1999). The process of leaving is shaped by the context of women's lives since they encounter barriers and must consider their options in terms of available resources, while dealing with daily issues (Campbell, Rose, Kub, & Nedd, 1998).

The post separation period is a vulnerable time when women often face health issues, and abuse from ex-partners, combined with a sometimes desperate need for basic resources (Lerner & Kennedy, 2000). Women's safety remains a key issue after leaving and there is evidence that risk of abuse actually increases when women separate (Mahoney, 1991; Mechanic, Weaver, & Resick, 2000). Women may become exhausted

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*A version of this manuscript will be submitted for publication.

and depleted in the post-separation period from directing their energy toward managing multiple, intrusive challenges to stay safe and access basic resources such as housing (Wuest, Ford-Gilboe, Merritt-Gray & Berman, 2003; Wuest & Merritt-Gray, 1999). These challenges in women's lives may, in part, explain why they return to their ex-partners or engage in a new abusive relationship. Stark (2007) argues that the fear elicited from the traumatic incident increases the need for protective attachments, driving some women to unwittingly enter a new abusive relationship. Given the dire health and social consequences of IPV, either returning to an abusive ex-partner or engaging in a new abusive relationship is problematic for women and their children.

Although some situational factors have been identified which hinder women's ability to maintain separation from their abusive ex-partners (McNaughton & Sanders, 2007; Newman, 1993; Pavao, Alvarez, Baumrind, Induni, & Kimerling, 2007), the full range of conditions which interfere with women's ability to maintain separation from an abusive partner have not been identified, nor has the relative importance of each factor been studied. To address this gap, a secondary analysis of data from the Women's Health Effects Study (WHES) was conducted to identify factors that predict women's inability to maintain separation from an abusive partner. Expanding our knowledge about these key factors is crucial in initiating effective interventions to help women live safe and productive lives.

Review of the Literature

The grounded theory, *Strengthening Capacity to Limit Intrusion (SCLI)* (Ford-Gilboe, Wuest, Merritt-Gray, 2005; Wuest, Ford-Gilboe, Merritt-Gray, & Berman, 2003) provides the theoretical framework for this study. This theory was generated from repeat

interviews with 40 Canadian women and their children, all of whom had separated from an abusive partner/father up to 18 years previously. In the theory, the central problem experienced by these families in promoting their health after leaving is *intrusion*, external interference which erodes the woman's control and hinders her ability to create a better life. The key sources of intrusion include: a) ongoing abuse from the ex-partner, b) poor mental and physical health resulting from past and current abuse, c) the personal "costs" of looking for assistance (i.e. stress and conflict from the process of getting help, helpers' expectations of women and/or the "rules" in service agencies), and, d) unwanted changes to patterns of living, such as financial losses, relocation, and social isolation (Ford-Gilboe et al., 2005; Wuest et al., 2003).

According to the theory, when intrusion is high, it reduces women's control, shifts their attention away from their priorities, limits their choices and options, and wears down their energy. It can be inferred from the theory that the stress associated with high levels of intrusion might force women to return to their abusive partners. In the context of seeing their children suffer with few material resources, or the challenges of parenting children in the face of ongoing health problems and limited support, women may be less able to resist their partner's demands to return. Furthermore, women may also make *hasty connections* with others, including new partners, before they know who they can trust (Ford-Gilboe et al., 2005). Thus, it is possible that intrusion may lead to women unknowingly entering into relationships with new abusive partners. However, whether varied types of intrusion predict women's ability to maintain separation from an abusive relationship has not been systematically studied.

Intrusion Associated with Ongoing Abuse and Harassment from the Ex-Partner

The *SCLI* theory emphasizes that continuing abuse and harassment by the ex-partner in the form of threats, stalking, and physical harm, limits women's options and choices (Ford-Gilboe et al., 2005; Wuest et al., 2003). Ex-partners used custody and child support agreements as a vehicle to carry out the abuse and harassment to destabilize the new family by interrupting family routines, stalking, violating family's rules, and harassing mothers by making false complaints to child protection agencies. Continuing abuse and harassment undermine women's ability to protect themselves and affects their ability to attain life's necessities and connect with the community (Wuest et al., 2003).

A few studies have documented continuing abuse (Alsaker, Moen, & Kristoffersen, 2007; Brownridge, 2006; Fleury et al., 2000; Mechanic et al., 2000), and harassment (Tjaden & Thoennes 2000) in post separation period. Sheridan (1998) defines harassment as the intent of the ex-partner to control woman's behavior and options about leaving him by carrying out behaviors that intimidate, trap, upset, and/ or threaten her (Davies, Ford-Gilboe, & Hammerton, 2009). A wide range of harassing behaviours have been documented in the literature including calling the woman, sending unwanted messages, following her (Mechanic et al., 2000), interrupting her at work (Hardesty, 2002), and/ or forcibly entering her house to damage property (Kurz, 1996). Examining patterns of IPV from Wave 1 of the Women's Health Effects study (WHES), an average of 20 months post-separation, only 11% of women reported that they had experienced no continuing abuse or harassment after leaving (Davies et al., 2009). Thus, leaving does not mean having a safe life. Mahoney (1991) referred to the violence that takes place after leaving as "post-separation assault". In the 1993 Canadian Violence Against Women

Survey, 19% of abused women experienced physical abuse from their ex-partner after they left the relationship (Johnson & Sacco, 1995). Abuse in the post separation period sometimes escalates to homicide (Hardesty, 2002; Hotton, 2001; Wilson & Daly 1993). For example, in Campbell et al.'s (2003) study of 220 intimate partner femicide cases identified from medical records or police, and 343 abused control women from11 different cities, separation from an abusive partner was found to markedly increase women's risk of intimate partner femicide.

There is evidence that ex-partners use interactions related child custody and child support as opportunities to continue the abuse (Davies et al., 2009; Shalansky, Ericksen & Henderson, 1999; Wuest & Merritt-Gray, 1999) largely to exert control and dominance over their female partner (Brownridge, 2006; Kurz, 1996; Hardesty, 2002). In this context, it has been proposed that patriarchal norms legitimize men's authority and support women's oppression and dependency (Hardesty, 2002). In support of these views, analysis of the data from wave 1 of the WHES revealed that gender inequality, conceptualized using Connell's 3 dimensions of relations of production (paid and unpaid work), cathexis (emotional and social relations between partners), and power, explained women's risk of continuing IPV after separation from an abusive partner (Davies et al., 2009).

Continued abuse and harassment is problematic in that it might hinder a woman's ability to establish an independent life (Shalansky et al., 1999; Wuest & Merritt-Gray, 1999), augment exposure to a number of stressors (Anderson & Saunders, 2003), and disturb women's ability to maintain employment (Swanberg & Logan, 2005). In Mertin and Mohr's (2001) longitudinal study of 59 survivors interviewed while in shelter and

one year after, ongoing abuse was positively correlated with anxiety, depression, and PTSD symptoms after one year of separation. Research has examined the forms and the ways in which an abusive ex-partner continues to abuse and harass women after separation, but the effect of continued abuse and harassment post leaving on women's ability to maintain separation from an abusive relationship is not well understood.

Intrusion Associated with Mental and Physical Health Problems

The *SCLI* theory highlights the cumulative health consequences of IPV including a variety of physical, mental, and behavioral problems (Ford-Gilboe et al., 2005; Wuest et al., 2003). In this theory, women's health problems lasted for up to 20 years after separation and the challenges associated with managing chronic health problems often diverted women's attention away from other priorities. Women who experienced chronic health problems struggled to find appropriate work or are unable to work outside the home, leading to economic problems and poverty (Wuest et al., 2003).

In the aftermath of IPV, women continue to suffer from disabling mental and physical health problems related to IPV, including Post Traumatic Stress Disorder (PTSD), depression, sleep disturbances, gastrointestinal disorders, chronic pain, and hypertension (Adkins & Kamp Dush, 2010; Fishman, Bonomi, Anderson, Reid, Rivara, 2010; Humphreys & Lee, 2005). Based on a review of literature, Anderson and Saunders (2003) concluded that women's mental health problems after separation might be equal to or exceed the mental problems they experience before leaving the relationship, although there is also some evidence that mental health improves over time. In a longitudinal study, Campbell and Soeken (1999) found that women's mental health improved 18 months after leaving, but only for those who were not experiencing ongoing abuse.

The most prominent mental health consequences of IPV are depression and PTSD. Golding's (1999) meta-analysis showed prevalence rates of depression and PTSD in women survivors of IPV of 47.6% and 63.8%, respectively. Campbell, Sullivan, and Davidson (1995) found that depression improved over time after separation; 83% of women were depressed upon shelter exit, while 58% were depressed 10 weeks and 6 months later. Depression symptoms impact women's lives in varied ways, such as contributing to difficulties in leaving an abusive relationship (Woods & Campbell, 1993), since depression can cause attachment insecurity, anxiety, hopelessness, and avoidance (Besser & Priel, 2005).

Moreover, after separation, it has been found that 45% of abused women (N=114) who were recruited from shelters, agencies, and the community were experiencing PTSD symptoms (Mechanic, Weaver, & Resick, 2008). PTSD is a significant cause of the functional limitations and morbidity (Frayne et al., 2004; Ouimette et al., 2004) and PTSD symptom severity has been associated with risk of unemployment (Kimerling et al., 2009) and more physical health problems (Woods, Hall, Campbell & Angott, 2008).

In the WHES, PTSD symptom severity mediated the relationships between severity of IPV and chronic pain (Wuest et al., 2009). The analyses of WHES as well show that the severity of abuse directly affects chronic pain severity (Wuest et al., 2010) and there was a high prevalence rate of disability related to chronic pain particularly back, headache, pelvic/vaginal pain, and swollen/painful joints (Wuest et al., 2008). Wuest et al. (2007) also found from the WHES that approximately half of abused women were taking medications for the nervous system and more than 15% were taking pain medications; women reported an average of three medical diagnoses and 12 different

current health problems. Chronic pain that is usually generated from head trauma, strangulation (Coker, Smith, Bethea, King, & McKeown, 2000), or from endocrine and immune system changes (Woods et al., 2005), is often a long-term disabling health consequence of IPV. Therefore, Coker et al. surveyed 1,152 abused women and found that women who experienced IPV in the past were likely to report a disability related to chronic pain which affected everyday functioning. Although the mental and physical health consequences of IPV have been documented, the impact of poor physical and mental health on women's ability to maintain separation from an abusive relationship in the aftermath of IPV has not been studied.

Intrusion Related to the "Costs" of Seeking and Receiving Help

While women in the post-separation period often need assistance and support from public agencies, family members, and friends, this help often comes at a 'price' or personal cost to the woman's independence. In the theory of *SCLI*, the personal costs of seeking help come primarily from conditions which people in the woman's social network place on offers of help, and from having to meet the expectations of service agencies to qualify for and obtain services (Ford-Gilboe et al., 2005; Wuest et al., 2003). Thus, women may experience negative social support (conflict) and difficulty accessing different services. Encountering the unexpected "costs" of getting help is intrusive for women because it is disempowering, makes them feel that they are a burden (Wuest et al., 2003), and increases their sense of loneliness (Ford-Gilboe et al., 2005).

In the literature, social conflict is defined as the existence of inequality, discord or stress in the social relationship that is caused by behaviors of others (Tilden, Hirsch, & Nelson, 1994; Vangelisti, 2009). Family members and friends often provide women who

have experienced IPV with emotional support, linkages to resources (Krishnan, Hilbert, McNeil, & Newman, 2004), a place to live, financial aid, and help with children (Goodkind, Gillum, Bybee, & Sullivan, 2003), but these interactions could lead to negative or costly outcomes (Davis & Brickman, 1996; Stewart & Tilden, 1995). In fact, family members and friends may minimize the abuse, blame the women, or challenge women's decision-making (Barnett, 2001; Lempert, 1997; McLeod, Hays, & Chang, 2010; Trotter & Allen, 2009). These types of negative interactions are a source of daily stress (Tilden & Galyen, 1987; Trotter & Allen, 2009) which has been found to negatively affect physiological and psychological wellbeing (Uchino, Cacioppo, & Kiecolt-Glaser, 1996), and symptoms of depression and quality of life (Goodkind et al, 2003). Findings from a phenomenological study of five women who had experienced IPV and left the relationship, suggest that social conflict may be a barrier to maintaining separation from an ex-partner (McLeod et al., 2010).

Further, there is evidence that women who have separated from an abusive partner harness the system to obtain a variety of life's necessities, such as subsidized child care, social assistance, and transportation (Anderson & Saunders, 2003; Plichta, 1992,Wuest & Merritt-Gray, 1999), but many have difficulty in obtaining formal support (Rose, Campbell, & Kub, 2000). There is evidence that women sometimes feel victimized by "the system" when they need to repeat their stories of abuse to helpers for each service, as this may trigger women's emotional vulnerability and re-victimize them (Lutenbacher, Cohen, & Mitzel, 2003; Macy, Nurius, Kernic & Holt, 2005; Wuest & Merritt-Gray, 1999). Accessing services can be intrusive for women when they are transferred from one person to another, consuming limited time and energy (Guruge &

Humphreys, 2009). In Newman's (1993) grounded theory of "Giving Up", women linked the primary reasons for returning to their ex-partners after leaving the shelter to difficulty getting help from social agencies, including the rush to get to appointments, waiting time, and needing to provide documentation to each agency. However, the relationship between difficulty accessing the system and women's return to an abuse partner has not been prospectively studied in a community sample.

Intrusion Related to Undesirable Changes in Patterns of Living after Leaving

Financial losses (strain) and relocation are conceptualized in *SCLI* theory as indicators of undesirable changes in patterns of living after leaving (Wuest et al., 2003). From the theory, economic challenges that many women experienced were linked to difficulty getting access to marital property, poor credit history, and low rates of employment (Ford-Gilboe et al., 2005). Living with limited financial resources was extremely intrusive, since it negatively affected women's health, required high levels of energy and attention to meet the basic needs, and limited the family's participation in social and recreational activities. In addition, relocation was also intrusive for women, because women often experienced difficulty finding proper housing, were under pressure to relocate quickly, and had to change children's schools (Ford-Gilboe et al., 2005; Wuest et al., 2003).

The literature recognizes that abused women usually experience financial strain in the post separation period (Treloar & Funk, 2008), since IPV normally limits women's economic independence by disturbing their ability to work outside the home (Swanberg, Logan, & Macke, 2005). Depletion of women's financial resources after leaving (Anderson & Saunders, 2003; Andreb & Brockel, 2007) has been attributed to many

factors, such as the costs of legal bills and several moves (Ford-Gilboe, Varcoe, Wuest, & Merritt-Gray, 2010). Poverty is a key determinant of women's health (Belle, 1990; Leipert & George, 2008), because financial strain limits women's choices to meet their basic daily needs and intensifies women's health problems (Carlson, McNutt, Choi, & Rose, 2002). For example, analysis of wave 1 of the WHES demonstrated that women's economic resources mediated the relationship between the severity of past IPV and current health status (Ford-Gilboe et al., 2009). In addition, poverty was found to be a barrier for women to maintain leaving (Aguirre, 1985; Griffing et al., 2002; Pavao et al., 2007).

Housing instability is a common problem among women who have left abusive partners (Ponic et al., in press), affecting as many as half of all women (Pavao et al., 2007). Baker, Cook, and Norris (2003) interviewed 110 women who left an abusive relationship in the past 3 years and revealed that 38% of women experienced homelessness after separation and 25% relocated during the first year. There is some evidence that women's housing instability after leaving is caused by repeated residential moves, or difficulty paying rent (Ponic et al., in press). Even when women have housing, it may be expensive, small, or located in an unsafe neighbor (Anderson & Saunders, 2003).

In the housing literature, the most significant predictor of moving propensity (i.e. relocation) and housing instability is housing satisfaction (Diaz-Serrano & Stoyanova, 2010; Lee, Oropesa, & Kana, 1994). Satisfaction with housing is affected by quality of housing, housing price (Elsinga & Hoekstra, 2005), and existence of social networks (Varady & Preiser, 1998) and has been found to impact individual well-being (Diener &

Biswas-Diener, 2002), happiness (Van Praag, Frijters, & Ferrer-i-Carbonell, 2003), and quality of life (Djebarni & Al-Abed, 2000). Therefore, housing issues can negatively affect women's health and sometimes leads women to return to their ex-partners (McNaughton & Sanders, 2007; Sullivan, Basta, Tan, & Davidson, 1992). For example, in a Canadian study (Taylor-Butts, 2007), 31% of Canadian women in shelter reported that they were unable to find housing and, as a consequence, planned to return to the abusive partner. As such, IPV has been associated with homelessness (Browne & Bassuk, 1997; Bufkin & Bray, 1998).

Although financial strain and housing problems have each been found to affect whether women return to an abusive ex-partner, the extent to which financial strain and housing satisfaction affects women's ability to maintain separation from an abusive relationship have not been systematically studied.

Summary

There is evidence that women who have separated from an abusive partner experience a number of intrusive issues including abuse and harassment, the demands of managing health problems, the personal cost of getting help, and changes to patterns of living, such as financial and housing issues. Furthermore, the negative effects of many of these sources of intrusion on women's lives after separation have been documented, including some evidence that difficulty accessing formal support from the service agencies, financial strain, and lack of options for housing may prompt women to return to their abusive partners. However, much of what is known has been derived from qualitative and/or cross-sectional quantitative studies, which have relied on women's retrospective recall of events, and have focused on single types of intrusion. While these

studies provide insights about challenges faced by women after separation, they are limited in their ability to examine whether different types of intrusion *cause* women to return to their abusive partners. Although only 13% of women stay in shelter after leaving (Sev'er, 2002), many of the studies reviewed include only samples of women living in shelter, which limit their generalizabilty to the broader community of women who have separated from an abusive partner. The extent to which a range of sources of intrusion predict women's ability to maintain separation from an abusive partner has not been systematically studied. Longitudinal studies which examine the impact of multiple types of intrusion on women's ability to maintain separation are needed to address these gaps. Therefore, the purpose of this study is to examine the extent to which selected indicators of intrusion predict the odds of women maintaining separation from an abusive partner over a one year period of time.

Hypothesis and Research Questions

As depicted in Figure 1, based on the *SCLI* theory and a review of the literature, the hypothesis that higher levels of intrusion increases the likelihood that women will be unable to maintain separation from an abusive partner over a one year period was tested, where indicators of intrusion included: continuing abuse, harassment, depressive symptoms, PTSD symptoms, chronic pain, social conflict, difficulty of accessing the system, financial strain, and lack of satisfaction with housing.

Two research questions were also examined: 1) How do women's partner relationships change over a one year period of time after leaving? 2) What are the relationships between selected demographic variables and women's ability to maintain separation form an abusive partner over one year period of time?

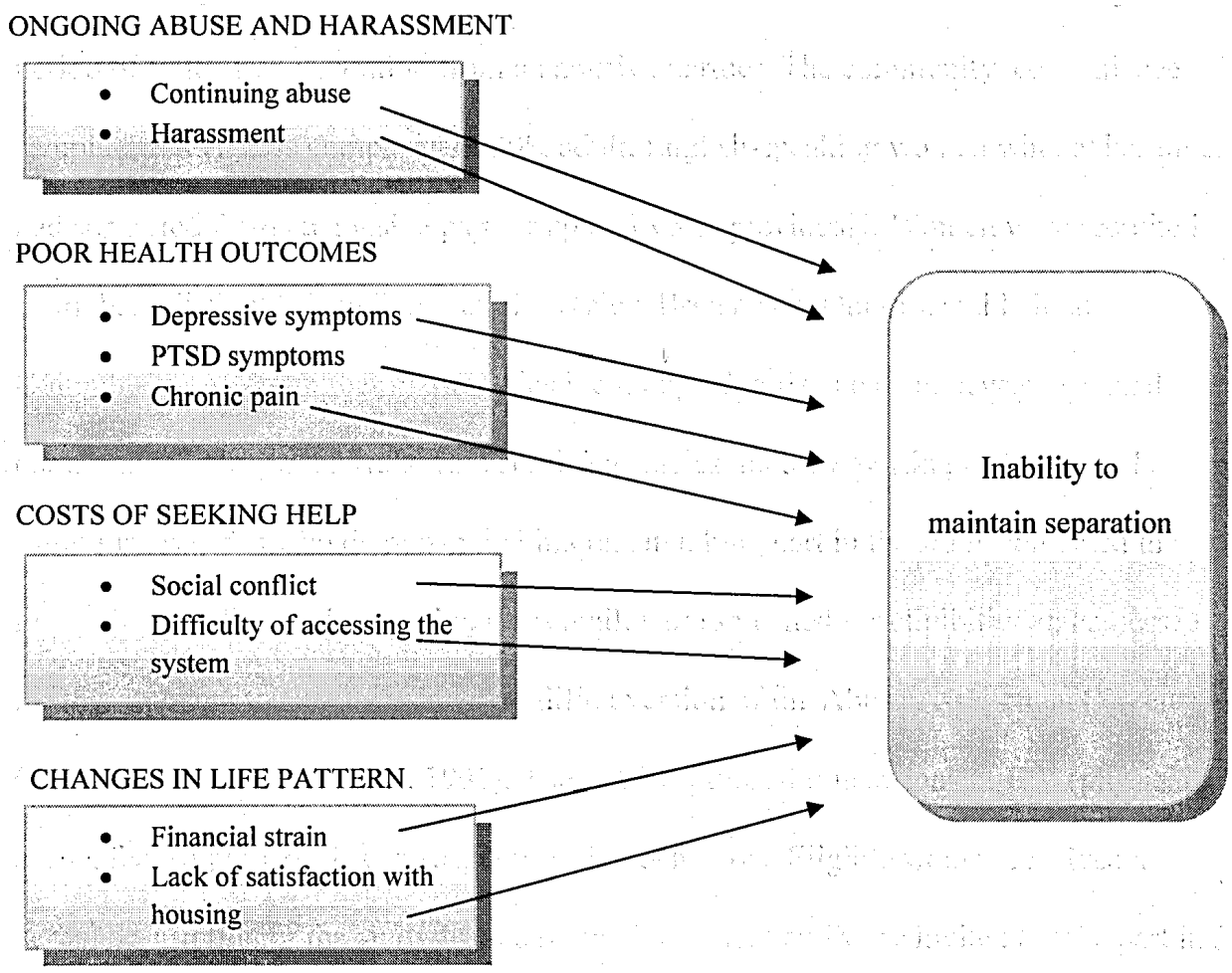

Figure 1: Research Hypothesis Derived from the Strengthening Capacity to Limit Intrusion Theory.

Method

Research Design

A secondary analysis was conducted using data from Waves 1 & 2 of the Women's Health Effects Study (WHES) (Ford-Gilboe et al., 2009), with indicators of current intrusion measured at wave 1 and women's inability to maintain separation from an abusive partner in the past 12 months measured at wave 2. The high rates of women's problems (intrusion indicators) reported in the WHES at Wave 1 make these data

appropriate to address the purpose of this study. The WHES is a longitudinal, prospective study of changes in women's health, exposure to IPV, and resources over a four year period of time after separation from an abusive partner. The community, convenience sample for WHES is composed of 309, adult, English-speaking women who, at baseline, had separated from an abusive partner up to 3 years previously. Women were recruited from three different Canadian provinces (New Brunswick, Ontario, and British Columbia) using a number of strategies including advertisements in newspapers and community settings, referrals from service agencies, media reporting and snowball sampling. Women who demonstrated interest in taking part in the study contacted the research team directly by telephone or email, were screened for eligibility and assessed for the exposure to IPV by using a modified version of the Abuse Assessment Screen (AAS) (Parker & McFarlane, 1991). The AAS captures 4 dimensions of IPV (physical abuse, fear of partner, forced sex, controlling behavior). Eligible women received a verbal description of the study from a research assistant and were invited to take part in 5 interviews (baseline and 12, 24, 36, and 48 months later) (Ford-Gilboe et al., 2009).

Data Collection Procedures

Data were collected by Registered Nurses who received standardized training to ensure consistency in the data collection process and to promote safety during all interactions. Both Wave 1 and 2 data were collected using Structured Interviews (SI) consisting of standardized self-report measures, survey questions, and selected bio-physical measures. Interviews were conducted in a private location selected by the women or over the telephone if women lived at the distance from the study site. Women

were reimbursed for transportation and child care and received $35 as a participation fee in Wave 1 and $40 in Wave 2.

The study was approved by the Research Ethics Boards at the University of Western Ontario, University of New Brunswick, Simon Fraser University, University of British Columbia, and University of Victoria based on the Tricouncil Ethics guidelines. Written informed consent was obtained from the participants at enrollment and reconfirmed at each data collection session. Participation was voluntary and women were told that they could refuse to answer any questions or withdraw from the study at any time.

Sample

Data from 286 women who completed both Wave 1 and 2 of the WHES were included in this secondary analysis. Only 7.4% of women did not complete wave 2, and there were no demographic differences between those who dropped out of the study and those who continued to participate. The available sample (n= 286) exceeds the minimum requirement for testing the study hypothesis based on a power analysis conducted using G-Power (Faul, Erdfelder, Buchner, & Lang, 2009). With power set at .95 and alpha of .05, a total sample of 195 women was found to be sufficient to detect odds ratios equal to 1.3. The sample characteristics for the 286 women are reported in Table 1.

Measurement

Data were collected using summated rating scales and survey questions, including those used to gather demographic information from participants. In this analysis, all independent variables were selected from Wave 1, and the dependent variable was

Table 1: *Profile of Demographic Characteristics of the Sample at Wave 1 (N=286).*

Characteristics	Range	Mean	*SD*	% (n)
Age	19- 63	39.5	9.8	
Education (in years)	6- 22	13.4	2.6	
Annual Income	$0 – $95,000	$ 20,386	17,239	
Employed (full or part time)				45.1 (129)
Registered in Education or Training Program				16.1 (46)
Living with Children (< 18 years)				57.0 (163)
Visible Minority				16.1 (46)
Aboriginal				7.0 (20)

measured at Wave 2. Detailed information about the measurement approach used for each independent variable is provided Table 2.

Abuse and harassment from the Ex-Partner. Two measures of ongoing abuse and harassment were used in this study (Table 2). First, women were asked if they were experiencing ongoing abuse from their ex-partner (yes/no response). This single item assesses women's self-evaluation of their current exposure to abuse and allowed identification of women who experienced continued abuse and those who did not. This approach has reliability because women who have lived through IPV and left their partners are experts in identifying abuse as they have lived through this experience.

Next, the Harassment in Abusive Relationship: Self-Report Scale (HARASS; Brockmeyer & Sheridan, 1998; Sheridan, 2001) was used to assess women's self-evaluation of current exposure to harassment. Women are asked to rate 24 harassing behaviors according to their frequency in the past month (ranging from 0= *never true* to

Table 2: *Measurement Summary*

Type of Intrusion	Variables	Measures	Operational Definitions of Dichotomous Variables
Ongoing abuse	Continuing abuse	Structured self-report: "Is the abuse still going on?"	0= No (no ongoing abuse) 1= Yes (ongoing abuse)
	Harassment	HARASS scale	0= no or low frequency harassment 1= High frequency harassment
Health Outcomes	Depression symptoms	Center for Epidemiologic Studies-Depression (CESD) Scale	0= no or low depressive symptoms (scores of 0-15) 1 = moderate to high depressive symptoms (scores ≥16)
	PTSD symptoms	Davidson Trauma Scale (DTS)	0= no/low PTSD symptoms (scores of 0 to 39) 1= high PTSD symptoms (scores ≥ 40)
	Chronic pain	Chronic Pain Grade (CPG) scale	0= No or low disability Chronic Pain (Pain Grade 0, I, and II) 1= High disability Chronic Pain (Pain Grades III and IV)
Costs of Seeking Help	Social conflict	Social conflict subscale, Interpersonal Resources Inventory (IPRI)	0 = Lower social conflict (scores of 0-41) 1 = Higher social conflict (scores of ≥42)
	Difficulty accessing services	Survey question: "In the past year, how difficult has it been to get the support that you need from the system?"	0= No low difficulty accessing services (scores of 3 4 1= Difficulty accessing services (scores of 1 2)
Changes in Patterns of Lives	Financial strain	Survey question: ''Overall, how difficult is it for you to live on your total household income right now''?	0= no/low financial strain (scores of 1-2) 1= Moderate to High financial strain (scores of 3-4)
	Housing satisfaction	Survey question: "How satisfied are you with your current housing?"	0= satisfied with housing (scores of 1-3) 1= dissatisfied with housing (scores of 4-5)

4= *very frequently true*). The HARASS scale was developed for clinical use by women in the process of leaving an abusive partner and it has a Cronbach's alpha equal to 0.93 (Sheridan, 2001). In this study, the Cronbach's alpha for HARASS was 0.95. The distribution of continuous scores on the HARASS (range 0-61) was used to identify two groups of women who varied in exposure to harassment: 1. No or low frequency harassment (women with a score of 0 on all items and those who reported experiencing at least one item rarely (1) or sometimes (2) with no items experienced frequently (3) or very frequently (4); 2. High frequency harassment: those who reported experiencing at least one item frequently (3) or very frequently (4).This approach was used because experiencing high frequency harassment is most distressing to women (Mechanic et al., 2000).

Women's health problems. Intrusion from women's health problems was measured using indicators of depressive symptoms, post-traumatic stress disorder (PTSD) symptoms, and chronic pain (Table 2). Each of these scales has been widely used, with evidence of reliability and validity across varied samples.

The 20-item Center for Epidemiologic Studies-Depression (CESD) Scale was used to measure *depressive symptomology* (Comstock & Helsing, 1976; Radloff, 1977) along four dimensions: depressed affect, reduced positive effect, somatic and retarded activity, and interpersonal problems (Radloff, 1977). Women are asked to rate the degree of symptom occurrence during the past week, on a 4-point likert scale (ranging from 1= *rarely or none* to 4= *most of the time*). The CESD has demonstrated strong reliability among female survivors of IPV (Jarvis, Gordon, & Novaco, 2005), and low-income women attending primary care clinics (Thomas, Jones, Scarinci, Mehan, & Brantley,

2001) (alpha = 0.74 to 0.95). In this study, Cronbach's alpha was 0.93. A total score is created by summing values on all items (range 0-60). In this analysis, standardized cut score (Comstock & Helsing, 1976) was used to create a dichotomous variable: No or low depressive symptoms (scores < 16) and Moderate to High depressive symptoms (scores >16).

The presence of PTSD *symptomology* was measured using the 17-item Davidson Trauma Scale (DTS) (Davidson et al., 1997). Participants who reported having experienced a traumatic event are asked to rate PTSD symptoms (intrusion, hyperarousal, avoidance) experienced in the past week according to frequency (ranging from 0= *not at all* to 4= *every day*) and severity (ranging from 0= *not at all distressing* to 4= *extremely distressing*). This scale has demonstrated strong reliability and validity in varied samples including male war veterans, hurricane survivors, and rape victims (Cronbach's alpha = 0.79- 0.99) (Davidson et al., 1997). In this study, Cronbach's alpha was .95. An overall score is computed by summing separate frequency and severity scores (range 0–136), while a cut score of 40 has been shown to reliably predict symptom levels consistent with PTSD (Davidson et al., 1997). This analysis used the DTS cut scores to create a dichotomous variable (No or Low PTSD symptoms, High PTSD symptoms).

The 7-item Chronic Pain Grade (CPG) scale (Von Korff, Ormel, Keefe & Dworkin, 1992) was used to measure the pain grade in the past six months. Participants are asked to rate the interference of their pain (ranging from 0= *no interference* to 10= *unable to carry on any activities or extreme change*), the worst pain intensity (ranging from 0= *no pain* to 10= *pain as bad as it could be*), and how many days have been lost from usual activities due to the pain. Four categories of CPG are computed using the total

number of disability points and pain intensity scores: Grade 0 (pain free); Grade I (low disability, low intensity); Grade II (low disability, high intensity); Grade III (high disability, moderately limiting); Grade IV (high disability, severely limiting). The CPG has demonstrated strong reliability and validity among primary care patients experiencing back pain (n=1213) and headache (n=779) (Von Korff et al.), and general population samples of the UK (N=400) 18-60 years old (Mallen, Peat, Thomas, & Croft, 2005) (Cronbach's alpha = 0.76 to 0.91). In this study, internal consistency was .93 for pain disability, 0.84 for pain intensity, and 0.91 for the total scale. Consistent with guidelines for the scale, pain grades of 0, 1 and 2 were classified as No or Low disability chronic pain, while grades 3 and 4 were classified as High disability chronic pain.

"Costs" of seeking and receiving help. Intrusion from seeking and obtaining help was measured using measures of social conflict and difficulty accessing services (Table 2). First, social conflict was measured using the 13-item social conflict subscale of the Interpersonal Resources Inventory (IPRI) (Tilden, Hirsch, & Nelson, 1994). Participants are asked to rate how often each item happened using a 5-point likert scale (ranging from 1= *never* to 5= *very often*), with total scores (range 0-65) created by summing responses to each item. Cronbach's alpha of this scale among homeless women (n=255) (Anderson & Rayens, 2004), wives with chronically ill men (n=131) (Goodwin, 1997), and single mothers (n=247) (Samuels-Dennis, Ford-Gilboe, Wilk, Avison, & Ray, 2010) ranged from .81 to .92. In this study, Cronbach's alpha was 0.81. In this analysis, the mean score (42) was used to create a dichotomous variable with groups for Lower and Higher social conflict.

Second, difficulty in accessing services was measured using single item in which women were asked: "In the past year, how difficult has it been to get the support that you need from the system?" Four response options (ranging from 1= *very difficult* to 4= *not at all difficult*). These scores were recorded into 2 groups: No or Low difficulty accessing services (1, 2) and Difficulty accessing services (3, 4).

Changes to patterns of living. Two indicators of intrusion from changes in women's lives after leaving were measured: financial strain and satisfaction with housing (Table 2). Financial strain was measured using a single question: ''Overall, how difficult is it for you to live on your total household income right now''? Participants responded to this item on a 5-point scale (ranging from 1= *not at all difficult* to 5= *very difficult or impossible*). This single item was used because it presents a global evaluation of economic strain. These scores were recoded into 2 groups: No or Low financial strain (scores of 1-2) and Moderate to High financial strain (scores of 3-4).

Housing satisfaction was measured using a single question: "How satisfied are you with your current housing?" was used to measure housing satisfaction. Participants responded to this single item using a 5-point scale (ranging from 1= *very satisfied* to 5= *very dissatisfied*). These scores were also recoded into 2 groups: Satisfied with housing (scores of 1-3) and Dissatisfied with housing (scores of 4-5).

Inability to maintain separation. A measure of women's inability to maintain separation from an abusive partner was created from women's self-reports of partner relationships in the past year at wave 2, and, for each relationship, their responses to a modified version of the Abuse Assessment Screen (AAS) (Parker & McFarlane, 1991), an established measure of women's exposure to IPV (i.e. physical, sexual,

psychological). First, all women were asked to describe the level of contact they had with their ex-partner in the last year. Those who indicated that they had dated or lived with their ex-partner at any point in time in the past year were identified. These women's responses to the 4 questions on the AAS were then used to classify this relationships as abusive (yes response to any question on the AAS) or non-abusive (no to all 4 questions).

To determine whether women had experienced abuse from any other partner in the past year, women were asked if any (other) partner relationship had started, ended or was ongoing in the previous 12 months. Those who indicated that they had a new relationship at any point in time in the past year were identified. These women's responses to the 4 questions on the AAS were then used to classify the new relationships as abusive (yes response to any question on the AAS) or non- abusive (no to all 4 questions).

Finally, a new dependent variable, *inability to maintain separation* was created for the main logistic regression analysis, such that women who had either returned to the abusive ex-partner or had a new abusive partner in the past year were categorized as being unable to maintain separation (1) and those who neither returned to the abusive ex-partner nor had a new abusive partner were categorized as able maintain separation (0).

Data Analysis

Data were analyzed using the *Statistical Package for Social Sciences* (SPSS) Version 19. Descriptive statistics were computed for each variable and to describe patterns of partner relationships (Research Question 1). Tests of associations appropriate to the level of measurement were computed to test the relationship between selected demographic variables and women's inability to maintain separation (Research Question

2). Binary logistic regression was used to test whether indicators of intrusion, collectively and uniquely, predicted women's inability to maintain separation. This statistical test is used to predict an outcome that is dichotomous (i.e. inability to maintain separation) from a set of predictors or independent variables (i.e. measures of intrusion) (Leech, Barrett, & Morgan, 2008). This technique transforms the probability of an event occurring into its odds. The dichotomous form of all predictor variables was used to test the hypothesis since the odds ratio has a simpler interpretation in the case of categorical variables with two categories (Bewick, Cheek, & Ball, 2005). Given that logistic regression does not have specific distributional assumptions (Leech et al., 2008); there is no need to assess the data in term of shape of the distribution of the variables. Multicollinearity, which occurs when independent variables are highly correlated (Polit & Beck, 2008), leads to problems with estimation (Leech et al.). Therefore, prior to conducting the logistic regression multicollinearity of all independent variables was assessed using chi-square statistic test. Although significant relationships among a number of independent variables were found, there was no evidence of multicollinearity (all phi coefficient values were below 0.5). The level of statistical significance for this study was set at $p < .05$.

Results

Descriptive statistics for the independent study variables are presented in Table 3. Across these variables, the percentage of women who experienced higher levels of intrusion ranged from a low of 22.7% (dissatisfied with housing) to 73.1% (higher depressive symptoms). Overall, these rates seemed reasonable to adequately test the study hypothesis.

Table 3: *Descriptive Statistics for Independent Variables (N= 286).*

Independent variables	Mean (SD)	Range	Higher intrusion	
			n	(%)
Ongoing abuse	-	-	113	39.5
Harassment	5.2 (9.20)	0- 61	74	25.9
Depressive symptoms	25.4 (13.11)	0- 54.7	209	73.1
PTSD symptoms	47.6 (31.17)	0- 125	149	52.1
Chronic pain disability	-	-	92	32.2
Social conflict	42.1 (11.56)	13- 52	146	51.0
Difficulty accessing services	2.2 (1.07)	1- 4	185	64.7
Financial strain	3.3 (1.42)	1- 5	172	60.1
Satisfaction with housing	2.3 (1.44)	1- 5	65	22.7

At wave 2, 5.9% (n=17) of women had returned to the *abusive* ex-partner at some point in the previous year (i.e. had dated, lived with him at some point of time, or were currently living with him), while 20.6% (n=59) of women reported that they had been in *a new abusive* partner relationship in the same period of time. Thus, 26.6% (n=76) of women did not *maintain separation from an abusive relationship*. The remaining 201 women (73.4%) remained single/had no partner relationship (n= 96, 33.6%), had one or more non-abusive new partner relationships (n=113, 39.5%) or returned to an ex-partner who was not longer abusive (n=1, 0.3%).

No significant relationships were observed between women's inability to maintain separation and the demographic characteristics of women's age, income, years of

education, or whether they are parenting dependent children based on t-test or chi-square test (Research Question 2).

Finally, given that women who maintained separation from an abusive partner had one of two relationship patterns (i.e. stayed single/no partner versus non-abusive partner relationship), and it is possible these 2 conditions could be association with different outcomes, analysis of variance was used to explore differences in demographic and intrusion variables across 3 groups of women: those who did not maintain separation from an abusive relationship, women who had a non-abusive relationship (i.e. new non abusive partner OR non abusive ex-partner), and women who were single (Table 4 & 5).

Table 4: *Differences in Demographic characteristics by Relationships Pattern (3 groups)*

Demographic characteristics (Wave 1)	Relationship Status (Wave 2)			Differences
	Did not maintain separation from an abusive partner (*n*= 76)	Repartnered with *non* abusive partner (*n*= 114)	Remained single (no partner relationship) (*n*= 96)	
Age (*M, SD*)	40.50 (9.84)[2]	36.54 (9.71)[1,3]	42.26 (9.36)[2]	*F*(2, 283)= 9.92*
Years of education (*M, SD*)	13.60 (2.51)	13.05 (2.49)	13.56 (2.77)	*F*(2, 276)= 1.34
Annual income (*M, SD*)	$18,114.46 (12,402.03)	$21,801.04 (17,965.73)	$20,473.23 (19,464.05)	*F*(2, 278)= 1.03
Having dependent child < 18 years (%)	50.0%	60.5%	58.3%	*F*(2, 283)= 1.08

* $p<.05$

Table 5: *Differences of Intrusion Indicators by Relationships Pattern (3 groups)*

Intrusion indicators (Wave1)	Relationship Status (Wave 2)			Differences
	Did not maintain separation from an abusive partner (*n*= 76)	Repartnered with *non* abusive partner (*n*= 114)	Remained single (no partner relationship) (*n*= 96)	
Ongoing abuse (%)	39.5%	33.3%	46.9%	*F*(2, 283)= 2.01
Harassment *M* (*SD*)	5.3 (8.99)	4.2 (7.73)	6.3 (10.82)	*F*(2, 281)= 1.29
%	25.0%	20.2%	33.3%	
Depression *M* (*SD*)	28.7 (11.96)[2]	22.8 (12.74)[1]	25.7 (13.88)	*F*(2, 283)= 4.73*
%	88.2%	64.9%	70.8%	
PTSD *M* (*SD*)	55.8 (28.34)[2]	40.1(30.94)[1]	50.2 (31.91)	*F*(2, 264)= 6.21*
%	63.2%	38.1%	48.9%	
Chronic pain *M* (*SD*)	2.3 (1.24)	1.9 (1.24)	2.1(1.27)	*F*(2, 279)= 2.55
%	40.3%	28.7%	34.8%	
Social conflict *M* (*SD*)	44.3 (10.37)	40.6 (12.39)	42.1(11.85)	*F*(2, 278)= 2.27
%	57.3%	50.4%	49.5%	
Accessing services *M* (*SD*)	2.2 (1.10)	2.2 (1.10)	2.1(1.01)	*F*(2, 281)= 0.26
%	63.2%	65.5%	66.3%	
Financial strain *M* (*SD*)	3.4 (1.41)	3.2 (1.42)	3.4 (1.44)	*F*(2, 280)= 0.55
%	62.7%	57.5%	63.2%	
Housing satisfaction *M* (*SD*)	2.5 (1.49)	2.2 (1.34)	2.3 (1.51)	*F*(2, 277)= 1.04,
%	24.3%	20.7%	25.3%	

* $p < .05$

When group differences were found, post hoc Scheffe multiple comparisons were computed to evaluate pairwise differences among the groups. Only three differences were noted between these groups. In terms of demographic characteristics, there was statistically significant difference in the means of age among the three groups, as women who did not maintain separation from an abusive partner were significantly older than those who re-partnered in non-abusive relationship, and single women were also significantly older than women who re-partnered in non-abusive relationship (Table 4). In terms of intrusion indicators, significant group differences were found for both symptoms of depression and PTSD. Women who did not maintain separation from an abusive partner had significantly higher levels of both depressive and PTSD symptoms than those who re-partnered in non-abusive relationship (Table 5).

Test of the Hypothesis

The preliminary analysis showed no significant differences between the two groups of women who maintained separation (i.e. those who re-partnered in non-abusive relationships and single women), in terms of intrusion indicators. Therefore these two groups of women were combined into one group for the main analysis. Logistic regression was used to assess how well the independent variables predicted women's inability to maintain separation from an abusive partner, with all IVs entered together in one step. A listwise deletion of cases containing missing data resulted in 247 cases for this analysis, and reduced the original sample size by13.6%. As indicated by Nagelkerke R^2 statistics, approximately 13.9% of the variance in women's inability to maintain separation was predicted from the linear combination of the 9 independent variables, $\chi^2 = 25.07$, $df = 9$, $p < 0.05$. However, only symptoms of depression and PTSD were

significant unique predictors when all nine variables are considered together. Inspection of the odds ratios for each variable (Table 6) shows that women who experienced clinically significant symptoms of depression were 4.58 times more likely to be unable to maintain separation than women with no or low depressive symptoms (95% CI= 1.70-12.37). Similarly, women who experienced symptoms consistent with PTSD were 2.27 times more likely to be unable to maintain separation from an abusive relationship than woman with no or low PTSD symptoms. Since Post hoc Scheffe multiple comparisons showed differences between women who did not maintain separation and those who re-partnered in non-abusive relationships in terms of intrusion indicators, this analysis was repeated using only these two groups. The pattern of result was similar to the main analysis, enhancing the reliability of the findings.

Table 6: *Logistic Regression Predicting Women's Inability to Maintain Separation from an Abusive Partner (N=247)*

Predictor	*B*	*SE*	Wald χ^2	*P*	*OR*
Ongoing abuse	.06	.35	.03	.868	1.059
Harassment	-.22	.39	.30	.583	.807
Depression	1.52	.51	9.02	.003*	4.581*
PTSD	.82	.36	5.28	.022*	2.266*
Chronic pain	.15	.32	.23	.635	1.164
Social conflict	-.14	.33	.18	.669	.870
Difficulty accessing services	-.22	.35	.39	.532	.805
Financial strain	-.37	.35	1.05	.306	.701
Satisfaction with housing	-.07	.36	.04	.844	.933

* $p < .05$

Discussion

This study is one of the few to have assessed women's relationship patterns after leaving an abusive partner. In this community sample, more than 20% of women entered a new abusive relationship while around 6% returned to their abusive ex-partner, over a one year period of time post-separation. This finding that relatively few women returned to the abusive ex-partner contradicts the common assumption that women who leave an abusive relationship return back after a short period of time (Griffing, et al., 2002; Martin et al., 2000; Newman, 1993). Thus, this finding is consistent with research which highlights women's strength and agency breaking free from abuse and in maintaining a life from ex-partner (Campbell et al., 1998; Wuest & Merritt-Gray, 1999), since leaving is a challenging and risky action (Ford-Gilboe et al., 2010).

The result of this study also contributes to understanding varied relationship patterns among women who have recently separated from an abusive partner. A comparison of women who were in a new or previous abusive relationship, women who remained single, and women who re-partnered with a *non* abusive partner demonstrated that the first group experienced more intrusion from depressive and PTSD symptoms after leaving. This result validates how intrusion in women's lives after separation requires attention, limits their choices, and depletes women's energy. These findings extend the literature by documenting how women's relationship patterns vary after separation and how these patterns are related to the context of women's lives. Future research is required to scrutinize the differences among women with different patterns of relationships and to examine the effect of continued abuse and harassment on women's relationship patterns over time.

Overall, the major findings of this study contribute unique insights about the risk factors which contribute to women's inability to maintain separation from an abusive partner over a relatively short period of time. The study's hypothesis was partially supported, suggesting that depression and PTSD symptoms heighten women's short-term risk of revictimization (i.e. returning to an abusive ex-partner or having new abusive partner) in the post-separation period. In addition, the model combining all intrusion indicators predicted women's inability to maintain separation, reinforcing the usefulness of the concept of intrusion in understanding the challenges women face.

Women are often depressed following an abusive relationship (Besser & Priel 2005; Campbell et al., 1995; Cascardi, O'Leary, & Schlee, 1999; Gleason, 1993; Golding, 1999), and they may experience PTSD as well (Ford- Gilboe et al., 2010; Kemp, Green, Hovanitz, & Rawlings, 1995; Kimerling et al., 2009; Mechanic et al., 2008; Saunders, 1994; Vitanza, Vogel, & Marshall, 1995). Both depression and PTSD are consequences of IPV, but there is also some evidence from longitudinal research (Ehrensaft, Moffitt, & Caspi, 2006) that mental health problems, such as depression and PTSD, also increase women's risk of engaging in abusive relationships. For example, in a sample of adolescent girls, depression significantly predicted dating an abusive partner (Cleveland, Herrera, & Stuewig, 2003). The fact that poor mental health both predicts and results from IPV may, in partially explain why depression and PTSD symptoms in the aftermath of IPV were risk factors for returning to the abusive ex-partner or entering a new abusive relationship.

The findings that symptoms of PTSD and depression were the only independent predictors of women's risk of not maintaining separation from an abusive partner may be

explained in several ways. Women's mental health is socially determined (Anderson, 2006; Moss, 2002) and is shaped by multiple, intersecting social conditions (Samuels-Dennis et al., 2010). Many of the indicators of intrusion used in this study are, in fact, determinants of health, which may affect women's inability to maintain separation indirectly, through their impact on women's health (i.e. depression and PTSD). There is evidence that women's personal, social and economic resources in post separation period directly affect their current mental health (Ford-Gilboe et al., 2009). The use of logistic regression to test the study hypothesis did not permit examining how various dimensions of intrusion might directly and indirectly shape women's ability to maintain separation from an abusive partner. In future, studies which develop and test causal mechanisms which explain the relationship between intrusion and women's ability to maintain separation, are needed to more completely understand how multiple, interrelated factors shape women's responses to IPV, including their ability to maintain separation from an abusive partner.

In the post separation period, women need to be healthy to care for themselves, carry out their social roles, and be economically self-sufficient. In addition, women's health plays a significant role in women's patterns of the relationship in the aftermath of IPV and their abilities to have productive lives free from abuse. Results of this study suggest that poor mental health contributes to continuing the vicious cycle of the IPV. Depressed women typically feel sad, hopeless, and apathetic and may experience difficulties with problem solving (Ainsworth, 2000). Depression, additionally, is associated with low self esteem (Campbell & Soeken, 1999), and daily hassles (Campbell, Kub, Belknap, & Templin, 1997). PTSD symptoms fall under three clusters:

intrusion (flashbacks, nightmares, and distress in reaction to triggers), hyperarousal (extreme vigilance), and constriction (psychological numbing) (Foa, Keane, & Friedman, 2000; Stark, 2007). Therefore, it is common for women who experience PTSD to have diminished interest in activities and feelings of estrangement, cognitive or somatic symptoms of anxiety, recurring nightmares, sleep disturbance, impaired concentration or memory (Campbell, Torres, McKenna, Sheridan, & Landenburger, 2004), low energy and difficulty maintaining behavior changes (Dutton et al, 2006). Furthermore, depression and PTSD symptoms typically interfere with women's everyday lives and are an important underlying cause of functional limitations and morbidity (Frayne et al., 2004; Ouimette et al., 2004). For example, depression is the second leading cause of Disability Adjusted Life Years (DALYs) (Michaud, Murray, & Bloom, 2001). Similarly, PTSD symptom can lead to unemployment (Kimerling et al., 2009) and physical health problems (Woods et al., 2008).

Thus, although leaving an abusive relationship is a complex, long term process which is both liberating and stressful (Wuest et al., 2003), women who are living with high levels of depressive and PTSD symptoms may lack the physical and emotional energy needed to withstand the stress of leaving and creating a new life separate from an abusive partner, making it more challenging to leave permanently. Although hypervigilance is one of the PTSD symptoms, over time, psychological numbing symptoms become more dominant (Stark, 2007), reducing women's ability to identify and respond to the signals of danger at a time when they need to proceed carefully in assessing their risk and the qualities they are looking for in new partners. This is consistent with Lipsky, Field, Caetano, and Larkin (2005) finding that depression and

PTSD affected abused women's ability to manage the crisis, make safety plans, and terminate permanently an abusive relationship.

In addition, there is some evidence which suggests that PTSD is associated with lower levels of resiliency (Johnson, Palmieri, Jackson, & Hobfoll, 2007) -the capacity to respond, adapt, change and grow in the face of challenges (Ford-Gilboe et al., 2009). If women with higher PTSD symptoms also had less resilience, this may, in part, explain why PTSD had such a powerful effect on women's inability to maintain separation in this study. The literature suggests that women who have experienced IPV are "survivors", acknowledging their personal strengths, such as determination, problem-solving, and personal growth (Campbell et al., 1998; Wuest & Merritt-Gray, 1999); however, the impact of personal strengths on women's inability to maintain separation was not examined in this study. This could be an important area of future research, particularly given that indicators of intrusion explained only 13.9% of the variance in women's ability to maintain separation. Studies which focus on the role of women's capacities and strengths in shaping their ability to maintain separation from an abusive partner are needed.

Surprisingly, difficulty accessing the system and financial strain were not significant risk factors of women's inability to maintain separation. These findings are inconsistent with the literature which suggests that poverty (Aguirre, 1985; Griffing, et al., 2002; Pavao et al., 2007) and difficulty of access support from the system (Lutenbacher et al., 2003; Newman, 1993) often forces women to return to their abusive ex-partner. In fact, financial strain may not be the best proxy for poverty as these women who have lived with low incomes for long time may not report high financial strain,

because they may learn how to survive. In addition, financial strain was correlated moderately with income (r=.33).

Although this study contributes to the literature about risk factors of women's inability to maintain separation from an abusive partner, it has some limitations. The measurement approach used in this study may have limited the predictive power of the risk factors. The decision to use categorical rather than continuous independent variables was based on ease of interpreting the results; it is possible, however, that this also resulted in less variability and sensitivity of measurement, potentially reducing the ability to reliably identify predictors of women's inability to maintain separation. Furthermore, in a secondary analysis, the researcher uses data collected by others to test new hypotheses and relationships that were not the focus of the original study (Jacobson, Hamilton, & Galloway, 1993; Law, 2005). Lack of control over how a study is designed, which data were collected, and how they were collected, can place limits on the conclusion that can be drawn from the analysis (Castle, 2003). However, the secondary analysis is efficient and economical. While the strength of using the WHES data set for this analysis was the size and diversity of the sample, and the fact that the data were collected from a community sample of women who had all been living separately from their abusive partners for 3 months to 3 years, not all measures were ideal for this study. In particular, the use of a single item, self-report measures of ongoing abuse (Yes/ No) may not have fully captured the extent of intrusion associated with ongoing abuse for women.

Conclusion

This study was conducted to generate knowledge that may be useful in supporting women to live a life free of abuse and showed that symptoms of depression and PTSD are significant risk factors for women to return to their ex-partner or engage in new abusive relationships. Helping women who have separated from an abusive partner to address intrusive mental health symptoms and improve their mental health may be an important, but understudied, vehicle for supporting them to break free of intimate partner violence.

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CHAPTER 3

Summary and Implications

The purpose of this study was to examine the extent to which selected indicators of intrusion predicted the odds of women maintaining separation from an abusive partner over a one year period of time. A secondary analysis of data from Waves 1 and 2 of the Women's Health Effects Study (WHES) was conducted. This prospective study included a community sample of 309 Canadian women who had recently separated from an abusive partner to examine changes in women's health, resources and experiences of abuse over a four year period. In the WHES, a number of summated rating scales and survey questions were used to measure a wide range of variables. In this secondary analysis, all independent variables (i.e. indicators of intrusion) were selected from Wave 1, and the dependent variable (i.e. inability to maintain separation) was measured at Wave 2. Binary logistic regression was used to assess how well the independent variables predicted women's inability to maintain separation from an abusive partner. Results of this study shows that the vast majority of women in this community sample were able to maintain separation from an abusive partner over a short period of time (i.e. 1 year), challenging commonly held assumptions that women are seldom successful in leaving an abusive partner. Importantly, the study revealed that poor mental health heightens women's short-term risk of their inability to maintain separation from an abusive partner, as women who experienced significant symptoms of depression were approximately 5 times more likely to be unable to maintain separation and women who experienced symptoms of PTSD were around 2 times more likely to be unable to maintain separation than those who experienced lower levels of symptoms. The implications of these findings

for nursing practice and health care, education and research are suggested in the sections which follow.

Implications for Nursing Practice and Health Care

Mounting evidence highlights the high prevalence of IPV among health service users whether they have been identified or not (Rivara et al., 2007; Trevillion, 2011: Varcoe et al., 2011). Therefore, the findings that depression and PTSD symptoms are powerful factors which shape women's inability to maintain separation has important implications for nursing practice and health care. In practice, health care providers should avoid the tendency to focus on leaving as the end of women's problems, including their health issues. In addition to assessing women for IPV, nurses need to strengthen their practice to be able to help women who have experienced IPV to manage the intrusive issues which women typically face in the post-separation period.

Health care providers and those who support women who have experienced IPV must understand that poor mental health puts women at risk of continuing the vicious cycle of IPV. While depression and PTSD are mental health problems that are treatable (Carney & Freedland, 2007; Jones, Harding, Chung, & Campbell, 2009), these problems must first be identified. However, many people with depression are untreated or they receive suboptimal care (Lin et al., 2009). For example, analyses from the WHES show that more than half of the women in the study had symptoms consistent with PTSD based on the Diagnostic and Statistical Manual of Mental Disorders-IV criteria, yet only 7% reported that they had been diagnosed with PTSD by a health care provider (Wuest et al., 2008). In addition, 57% of women in the same sample had symptoms consistent with clinical depression, but only 31% had been diagnosed (Wuest et al., 2007). Hence,

effective identification and treatment of depression and PTSD symptoms is an important aspect of caring for women in the aftermath of IPV.

Poor mental health among women could be linked to history of trauma. Adopting a trauma-informed approach, which is based on an understanding of the effects of abuse on people's lives, health, and development (Elliot, Bjelajac, Fallot, Markoff, & Reed, 2005), could strengthen health care services. Herman (1992) identified three stages of trauma healing: a) establishment of safety and stabilization, in which providers focus on creating physical and psychological safety and on assisting women to feel understood within the therapeutic environment, b) remembrance and mourning, in which providers help women in remembering the details of what happened and grieving potentials that were lost and c) reconnection with everyday life, in which providers supporting women in reconnecting intimacy with others, seeing the positive changes formed by the traumas, and celebrating the survivor self. Therefore, improving the quality of care provided to women requires trauma-informed approach to be taken on beyond the mental health services as well, because women who have experienced IPV access a wide range of health services.

Furthermore, the finding also holds important implications for the development and implementation of interventions for women who have experienced IPV. For example, the empowerment and safety planning intervention (Tiwari et al., 2005) delivered by nurses in China resulted in a reduction in depressive symptoms. Interventions that are flexible and include coordinating access to needed health, financial, housing, legal, and childcare services (Briere & Jordan, 2004) must be adopted by nurses. Meaningful relationships between women and the nurse can be developed to support effective,

sensitive, individualized nursing care. To understand women's needs at this period of time, a mutual, trusting dialogue between nurse and client, where listening is key, is important (Newman, 1994). Women in abusive relationships want to participate in the decision-making in regard to interventions (Bacchus, Mezey, Bewley, 2003) and nurses must understand that these women are experts in their own lives (Davis, 2002). Interventions which are based on partnerships with women to initiate safety planning, offer support for dealing with intrusion, and formulate strategies to address the challenges which may negatively affect women's mental health and their ability to maintain separation beyond the crisis of leaving, need to be developed and tested. The Intervention for Health Enhancement After Leaving (*i*HEAL) is an example of promising primary health care intervention designed to improve the health and quality of life of women who have separated from an abusive partner by reducing intrusion and enhancing women's capacities to limit intrusion (Ford-Gilboe, Merritt-Gray, Varcoe, & Wuest, 2011).

A social determinants of health perspective must be undertaken to support nursing practice, due to the fact health is directly as well as indirectly determined by culture, social support, employment, income, education, environment, food security, and health services among other (Moss, 2002; Raphael, Bryant, & Curry-Stevens, 2004). More specifically, Parham (2008) stresses that mental health is influenced by biological factors as well as social and environmental factors, such as employment, education, and income (Barry, 2009). Therefore, poor control of depression and PTSD symptoms might be a red flag for lack of access to health care and medications resulting from financial restraints that affect when and how these women are taking medications (Wuest, Ford-Gilboe, Merritt-Gray & Berman, 2003). It could also reflect the difficulty women face in finding

time for their own health, given the challenges they may be facing, such as continued abuse, providing food for their family, or having unsuitable housing. In fact, there is evidence to support a link between difficult post-trauma readjustment, socioeconomic issues and lack of helpful support systems (Campbell, Torres, McKenna, Sheridan, & Landenburger, 2004). The finding that the overall model, including all intrusion indicators, significantly predicted women's inability to maintain separation, suggest that reducing intrusion in women's lives may be a fundamental way of helping support women to live free of abuse.

Therefore, nurses must play a role in helping women access existing community resources, including supports in legal, housing and income support sectors. Advocating for abused women and navigating the health care system are key supports which nurses can provide to women who are transitioning out of an abusive relationship (Davis, 2002). However, women do not always find these services welcoming and, at times, the demands placed on them by service providers have been identified as abusive. Nurses should collaborate across sectors such as with shelters to increase their awareness about symptoms of poor mental health, to offer support in identifying women who are experiencing mental health problems, and in providing referrals for appropriate health care as needed.

Given that some forms of intrusion, such as continued abuse, poverty, and inadequate housing, are closely linked to policies, nurses must develop relationships with policy makers so that they can influence the reform of policies which affect several forms of intrusion. For example, policies of child custody orders may affect the safety of

women, so custody policy must be developed which considers the complex implications of IPV (Wuest, Ford-Gilboe, Merritt-Gray, Lemire, 2006).

Nursing Education

While treatment is important for women who present with mental health problems as a result of IPV, the nurses who provide this care must understand the issues faced by women who have experienced IPV in order to provide safe, effective care. For example, the Royal College of Nursing (RCN) in 2003 established the Women's Mental Health Group to support gender-sensitive mental health nursing. One of the group's principles is that only nurses who are knowledgeable about abuse and who have the capability to assess patients' safety can provide support for women (Trevillion, 2011). Given that 1 in 4 Canadian women will experience IPV in their lifetimes, and these women seek help from health care providers at higher rates than women in the general population, intimate partner violence must be addressed as a core element in basic nursing education. Knowledge is power; therefore, theoretical knowledge as well as clinical experiences related to IPV must be integrated into nursing curricula to provide effective health care (RNAO, 2006) and give nurses understanding about the dynamics and consequences of victimization and nursing roles to support women who have experienced violence. Nursing curricula must also help nurses develop critical perspectives (Browne & Tarlier, 2008) by emphasizing on social determinants of health. Nurses must be educated about the impacts of cumulative violence on health, because this negatively affects recovery from the traumatic event (Follette, Polusny, Bechtle, & Naugle, 1996).

In the workplace, IPV education for health care providers is crucial to constantly develop and update their skills and knowledge based on new evidence (Davila, 2006).

Education in the workplace also has a positive impact in shaping nurses' attitudes toward abused women so that they can provide more effective care (Schoening, Greenwood, McNichols, Heermann, & Agrawal, 2004). Evidence also shows that implementing educational programs in the workplace is an essential first step in development of routine assessment of IPV and follow up protocols (Goff, Byrd, Shelton, & Parcel, 2001; Schoening et al., 2004), since it promotes health care providers' self-efficacy (Goff et al., 2001; Johnson et al., 2009). Therefore, education related to IPV should be a continuing education requirement for all nursing and all health care providers in order to meet competency requirements (Roark, 2010).

Nursing Research

Findings from this study add a new dimension to understanding the complexities of IPV and its consequences. The main finding that depression and PTSD are risk factors for re-victimization needs further research to replicate these findings while incorporating additional predictive variables. Future studies must address the ways in which poor mental health impacts women's ability to maintain separation and how other factors, such as the social determinants of health, directly or indirectly affect women's inability to maintain separation. Given that few studies have examined women's relationships in the aftermath of IPV, another important area for research focuses on understanding changes in women's relationship patterns after separation over time using longitudinal designs. Although not examined in this study, there is a need to examine the role of social support in shaping women's ability to maintain separation from an abusive partner over time; in several studies, social support has been found to affect women's ability to maintain

separation, although none of these studies have used longitudinal designs (Burke, Denison, Gielen, McDonnell, & O'Campo, 2004; Lutenbacher, Cohen, & Mitzel, 2003).

Despite the lack of significant relationships between most of the indicators of intrusion and women's inability to maintain separation, there remains theoretical support for such relationships, and, thus, further study is needed. The limited power of the independent variables in predicting women's ability to maintain separation may be related to the sensitivity of the study measures. Furthermore, the use of logistic regression analysis did not permit testing mediating or moderating effects of various dimension of intrusion. In future studies, causal models, which explain the inter-relationships between various dimensions of intrusion and how they affect women's inability to maintain separation over time, should be developed and testing using Structural Equation Modeling or Path Analysis.

Conclusion

In practice, education, and research, nurses must address the intrusion women face beyond the crisis of separating from an abusive partner in order to more effectively promote women's health. This study's finding suggests that depression and post-traumatic stress disorder (PTSD) symptoms increase the likelihood of having an abusive relationship in the aftermath of IPV. This knowledge must be used as a basis for strengthening both clinical practice and nursing education. However, much more research is needed to develop an understanding of the direct and indirect relationship between different intrusion indicators and women's inability to maintain separation.

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